

Molinate (Ordram®) Worker Safety Permit Conditions

The following are the Worker Safety Permit Conditions for Molinate 15-GM). Please read these permit conditions carefully.

I. General Requirements

A. Personal Protective Equipment

1. Coveralls are specifically required by these 2003 molinate (Ordram) permit conditions as personal protective equipment (PPE) for handling activities in addition to the PPE requirements on the Ordram 15-GM, and Ordram 8-E labels. These permit conditions also specify that references to a long-sleeved shirt and long pants herein, and on the Ordram 15-GM, and Ordram 8-E product labels, shall be interpreted to mean garments meeting the definition of coveralls. As a requirement of these permit conditions, coveralls are made the responsibility of the employer as provided in 3CCR section 6736.
2. The employer shall provide, and require employees to wear, all PPE (apparel and devices) required by these 2003 molinate (Ordram) worker safety permit conditions, product labeling, and regulation(s). The employer shall provide for daily inspection and cleaning of all PPE and repair or replace any worn, damaged, or heavily contaminated PPE. The employer shall keep and wash potentially contaminated PPE separately from other clothing or laundry. All PPE must remain the property of the employer, and pesticide handlers must not be allowed or directed to take potentially contaminated PPE into their homes.
Reference: 3CCR sections 6736 and 6738(a)(1), (a)(6), and (a)(8).

B. Granular Formulation: Requirements for **aerial or ground** application handlers who **will come in contact with** Ordram 15-GM product.

1. Bag Handling Requirements
 - (a) No person shall load more than 152,000 pounds of Ordram 15-GM per season. Two bag sizes are available: 500 pounds and 1,200 pounds.

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- (b) Ordram 15-GM shall be loaded only in the following manner:
 - (1) Directly from the bulk bag into the application vehicle hopper (direct loading) or
 - (2) Directly from the bulk bag into a loading cone and then to the application vehicle hopper (transloading).
- (c) The employer shall maintain a record of persons loading Ordram 15-GM and make these records available for inspection by the county agricultural commissioner or the Director upon request.

Records shall be kept as follows:

- (1) Name of person(s).
 - (2) The date and total pounds of Ordram 15-GM loaded per day.
- 2. Loaders or any persons having contact with or handling full, partial, or empty Ordram 15-GM bags shall wear the following PPE (apparel and devices):
 - (a) Protective apparel combinations:
 - (1) A coverall or garments defined as a "coverall" in 3CCR section 6000, UNDER a disposable coverall made of a synthetic material capable of excluding particles 45 microns or larger in diameter, such as Tyvek Q[®]¹, KLEENGUARD[®]¹, polypropylene, or other brands of coverall approved by the Department of Pesticide Regulation (DPR), Worker Health and Safety Branch; **OR**
 - (2) A full-body cloth suit (long-sleeved and long-legged) impregnated with activated charcoal UNDER a coverall or garments defined as a "coverall" in 3CCR section 6000; **OR**

¹ Use of trade or brand names does not imply endorsement by DPR. Trademark ownership: Gore-Tex, W.L. Gore & Associates; Tyvek, E.I. duPont de Nemours; KLEENGUARD, Kimberly -Clark; SARANEX, Dow Chemical Company

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- (3) A coverall or garments defined as a "coverall" in 3CCR section 6000, UNDER a chemical resistant coverall as specified in 3CCR section 6738 (g)(1). Examples of a chemical resistant coverall are rain suits, Tyvek QC®¹, Tyvek® laminated with SARANEX®¹, polypropylene laminated with polyethylene, or other brands of coverall approved as chemical resistant by the DPR, Worker Health and Safety Branch.
 - (b) A National Institute for Occupational Safety and Health (NIOSH) and/or Mine Safety and Health Administration (MSHA) approved full-face respirator with either cartridges(s) approved for organic vapors with a dusts/mists prefilter approved for pesticides, or a canister approved for pesticides.
 - (c) Chemical resistant gloves.
 - (d) Chemical resistant boots or chemical resistant coverings worn over boots or shoes.
 - (e) A tightly woven head covering.
3. Flaggers **NOT working in an enclosed cab**/vehicle shall wear the following PPE (apparel and devices):
- (a) A coverall or garments defined as a "coverall" in 3CCR section 6000, UNDER either a cloth coverall or a disposable coverall made of synthetic materials capable of excluding particles 45 microns or larger in diameter. Examples of these are Tyvek Q®¹, KLEENGUARD®¹, polypropylene, or other brands of coverall approved by the DPR Worker Health and Safety Branch.
 - (b) A NIOSH and/or MSHA approved half-mask respirator with either cartridge(s) approved for organic vapors with a dusts/mists prefilter approved for pesticides or a canister approved for pesticides.

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- (c) Protective eyewear (safety glasses).
Reference: 3CCR section 6738(b)(1)(E).
 - (d) Chemical resistant gloves.
 - (e) Chemical resistant boots or chemical resistant coverings worn over boots or shoes.
 - (f) A tightly woven head covering.
4. Flaggers **working in an enclosed cab/vehicle** shall wear the following PPE (apparel and devices):
- (a) A coverall or garments defined as a “coverall” in 3CCR section 6000.
 - (b) Protective eyewear is not required to be worn by flaggers working in an enclosed cab/vehicle.
 - (c) The PPE (apparel and devices) required above in this section for flaggers shall be immediately available to the flagger and stored in a chemical resistant container.
 - (d) The PPE required above in this section for flaggers shall be worn when performing flagging activities outside of the enclosed cab/vehicle.
Reference: 3CCR section 6738(i)(7).
- C. Granular Formulation: Requirements for **aerial or ground** application handlers **not involved** in mixing or loading Ordram 15-GM product.
1. Pilots shall wear the following PPE (apparel and devices):
- (a) A coverall or garments defined as a "coverall" in 3CCR section 6000.
 - (b) Pilots involved in loading or equivalent activities (load leveling,

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washing windshields, handling the bucket sock, etc.) where they may come in contact with Ordram 15-GM shall wear the same PPE (apparel and devices) required for loaders in section III.B.2 of these 2003 molinate (Ordram) worker safety permit conditions.

2. Ground applicators **NOT** involved in mixing or loading Ordram 15-GM, **NOT** having contact with or handling full, partial, or empty Ordram 10-G and/or Ordram 15-GM bags, and **NOT working in an enclosed cab** shall wear the following PPE (apparel and devices):
 - (a) A coverall or garments defined as a "coverall" in 3CCR section 6000, UNDER either a cloth coverall or a disposable coverall made of synthetic materials capable of excluding particles 45 microns or larger in diameter. Examples of these are Tyvek Q^{®1}, KLEENGUARD^{®1}, polypropylene, or other brands of coverall approved by the DPR, Worker Health and Safety Branch.
 - (b) A NIOSH and/or MSHA approved full-face respirator with either cartridges(s) approved for organic vapors with a dusts/mists prefilter approved for pesticides or a canister approved for pesticides.
 - (c) Chemical resistant gloves.
 - (d) Chemical resistant boots or chemical resistant coverings worn over boots or shoes.
 - (e) A tightly woven head covering.
3. Ground applicators **NOT** involved in mixing or loading Ordram 15-GM, **NOT** having contact with or handling full, partial, or empty Ordram 15-GM bags, and **working in an enclosed cab** shall wear the following PPE (apparel and devices):
 - (a) A coverall may be substituted for the PPE (apparel) as required above in this section for ground applicators.
Reference: 3CCR section 6738(i)(5).

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- (b) A NIOSH and/or MSHA approved half-mask respirator with either cartridge(s) approved for organic vapors with a dusts/mists prefilter approved for pesticides or a canister approved for pesticides must be worn unless working in an enclosed cab acceptable for respiratory protection.
Reference: 3CCR sections 6738(i)(5).
- (c) Protective eyewear is not required to be worn by ground applicators working in an enclosed cab.
- (d) The PPE (apparel and devices) required above in this section for ground applicators shall be immediately available to the ground applicator and stored in a chemical resistant container.
- (e) The PPE (apparel and devices) required above in this section for ground applicators shall be worn if it is necessary to exit the enclosed cab and contact pesticide treated surfaces, soil, or equipment in the treated area.

D. Liquid Formulation: Handling Requirements

1. **Liquid molinate (Ordram 8-E) shall not be applied by air.**
2. Mixers, loaders, and applicators **NOT working in an enclosed cab** who **will come in contact with** Ordram 8-E product shall wear the following PPE (apparel and devices):
 - (a) A coverall, or garments defined as a "coverall" in 3CCR section 6000, UNDER a chemical resistant coverall as specified in 3CCR section 6738 (g)(1). Examples of a chemical resistant coverall are rain suits, Tyvek QC®¹, Tyvek®¹ laminated with SARANEX®¹, polypropylene laminated with polyethylene, or other brands of coverall approved as chemical resistant by the DPR, Worker Health and Safety Branch.
 - (b) A NIOSH and/or MSHA approved full-face respirator with either cartridge(s) approved for organic vapors with a prefilter approved for pesticides or a canister approved for pesticides.
 - (b) Chemical resistant gloves.

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- (d) Chemical resistant boots or chemical resistant coverings worn over boots or shoes.
 - (e) A tightly woven head covering.
3. Applicators **NOT** involved in mixing or loading Ordram 8-E and **working in an enclosed cab** shall wear the following PPE (apparel and devices):
- (a) A coverall and shoes plus socks may be substituted for the PPE apparel required above in this section for Ordram 8-E mixers and loaders.
 - (b) A NIOSH and/or MSHA approved half-mask respirator with either cartridge(s) approved for organic vapors with a prefilter approved for pesticides or a canister approved for pesticides must be worn unless the applicator is working in an enclosed cab acceptable for respiratory protection.
 - (c) Applicators of Ordram 8-E working in an enclosed cab are not required to wear protective eyewear.
 - (d) The PPE (apparel and devices) required above in this section for loaders and mixers of Ordram 8-E shall be immediately available to the applicator and stored in a chemical resistant container.
 - (e) The PPE (apparel and devices) required above in this section for mixers and loaders of Ordram 8-E shall be worn if it is necessary to exit the enclosed cab and contact pesticide treated surfaces, soil, or equipment in the treated area.

II. Regulatory Requirements and Definitions

- A. "Chemical resistant," with respect to protective clothing, gloves, and boots, means PPE that is constructed of a material that allows no measurable movement of the pesticide through it during use. When PPE constructed of a specific material is specified on pesticide product labeling, PPE constructed of that material shall be used. Chemical resistant material does not include woven or porous material,

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such as cloth, leather, or Gore-TexTM², regardless of whether the material has been treated with a sealing agent.

Reference: 3CCR section 6000.

A "chemical resistant suit" covers the torso, head, arms, and legs. If the ambient temperature exceeds 80°F during daylight hours or 85°F during nighttime hours, employees shall not be allowed to continue handling pesticides which require wearing a chemical resistant suit unless employees use cooled chemical resistant suits or other control methods to maintain an effective working environment at or below 80°F during daylight hours or 85°F during nighttime hours.

Reference: 3CCR section 6738 (g)(2).

- B. "Coverall" means a **one- or two-piece garment** of closely woven fabric or equivalent that covers the entire body, except the head, hands, and feet, and must be provided by the employer as PPE. Coverall differs from, and should not be confused with, work clothing that can be required to be provided by the employee. Coveralls are specifically required by these molinate permit conditions for handling activities in addition to the PPE requirements on the Ordram 10-G, Ordram 15-GM, and Ordram 8-E labels.

Reference: 3CCR sections 6000 and 6736.

The employer shall assure that coveralls, and garments defined as a "coverall" in 3CCR section 6000 and required by these molinate worker safety permit conditions, are either cleaned daily or disposed of at the end of each employee's work shift. Employees must change out of their potentially contaminated coveralls, and garments defined as a "coverall" in 3CCR section 6000, and wash [themselves] at the end of the workday. The employer must assure that potentially contaminated coveralls, and garments defined as a "coverall" in 3CCR section 6000, are not taken home by employees.

Employees who do not return to the workplace at the end of the workday must remove and store potentially contaminated coveralls, and garments defined as a "coverall" in 3CCR section 6000, in a sealable container outside their living quarters for later return to the employer.

²Use of trade or brand names does not imply endorsement by DPR. Trademark ownership: Gore-Tex, W.L. Gore & Associates.

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Reference: 3CCR section 6736.

- C. “Enclosed cab” means a chemical resistant barrier completely surrounding the occupant(s) of the cab that prevents contact with pesticides or treated surfaces outside the cab.

Reference: 3CCR section 6000.

- D. “Personal protective equipment” (PPE) means apparel and devices worn to minimize human body contact with pesticides or pesticide residues that must be provided by an employer and are separate from, or in addition to, work clothing. PPE may include, chemical resistant suits, chemical resistant gloves, chemical resistant footwear, respiratory protection devices, chemical resistant aprons, chemical resistant headgear, protective eyewear, or a coverall (one- or two-piece garment).

Reference: 3CCR section 6000.

- E. Respiratory Protection. The employer shall assure that the air purifying elements (prefilters, filters, and cartridges) or entire respirator, if disposable, are replaced according to pesticide product labeling directions or respiratory equipment manufacturer recommendations, whichever provides for the most frequent replacement, or absent any other instructions on service life, at the end of each day's work period. At the first indication of odor, taste, or irritation, the wearer shall leave the area and check the respirator for fit or function concerns or air purifying element replacement.

Reference: 3CCR section 6738 (h)(8).

- F. "Work clothing" means garments such as long-sleeved shirts, short-sleeved shirts, long pants, short pants, shoes, and socks. Work clothing is not considered PPE although pesticide product labeling or regulations may require specific work clothing during some activities. Work clothing differs from and should not be confused with a coverall. While coveralls shall be provided by the employer, work clothing can be required to be provided by the employee. Short-sleeved shirts and short pants are considered acceptable work clothing only under conditions expressly permitted by pesticide product labeling.

Reference: 3CCR section 6000.

Molinate Water Management Requirements

- I. All water from fields treated with products containing molinate must be retained on the site of application for at least 28 days following application unless:
 - A. The water is contained within a tailwater recovery system, ponded on fallow land, or contained in other systems appropriate for preventing discharge. The system may discharge 29 days following the last application of molinate within the system.
 1. If the system is under the control of one permittee, water may be discharged from the application site in a manner consistent with product labeling.
 2. If the system includes drainage from more than one permittee, water may be discharged from the application site into the system nine days following application.
 - B. The water is on acreage within the bounds of areas that discharge negligible amounts of rice field drainage into perennial streams until fields are drained for harvest. All water on fields treated with molinate must be retained on the treated acreage until the twelfth day following application.
 - C. The water is on acreage treated with a preflood application of molinate. The label restrictions apply.
- II. Fields not specified in I.A., I.B., and I.C. may resume discharging field water 29 days following application at a volume not to exceed two inches of water over a drain box weir. Unregulated discharges from these fields may then resume after seven days.
- III. The county agricultural commissioner may authorize the emergency release of tailwater 12 days following the last molinate application, following a review of a written request (Form A), which clearly demonstrates the crop is suffering because of the water management requirements. All water management requirements must be followed that are associated with other pesticides that may have been applied to the site. Additionally, the requester must describe preventative action that would avoid the need for future emergency releases. Under an emergency release variance, tailwater may be released only to the extent necessary to mitigate the documented problem. Those issued an emergency release must submit to the county agricultural commissioner a report

Molinate Water Management Requirements, Continued

(Form B) indicating the time and duration of the emergency release and data that can be used to calculate the total amount of water release during the emergency release. Emergency release will only be granted for reasons related to rainfall, high winds, or other extreme weather conditions that cannot be moderated with management practices.

IV. The county agricultural commissioner may authorize the emergency release of Field water on the 12th day following the last molinate application, following the review of a written application that demonstrates salinity levels are damaging to the crop.

A. Applicants for such emergency releases must provide the following information:

1. All information indicated on the emergency release request form (Form A), including a description of the severity and extent of salinity damage.
 2. Electrical conductivity (EC) measurements, expressed as deciSiemens per meter (dS/m) or microSiemens per centimeter ($\mu\text{S}/\text{cm}$), from field water in each paddy suspected of having salinity problems. To most effectively demonstrate salinity problems, measurements should be taken wherever salinity problems are evident.
 3. The instrument (make and model) used to determine EC measurements. The instrument must have a sensitivity range that accommodates the full range of EC values in intake and paddy water (usually a range of 0-5.0 dS/m or 0-5,000 $\mu\text{S}/\text{cm}$ should be sufficient) and should have a resolution of not less than five percent. The instrument must be calibrated according to the manufacturer's instructions. The applicant must specify the method of temperature compensation (i.e., automatic, conversion table).
 4. Who made the EC measurements.
 5. The source of irrigation water (e.g. district supply canal, drainage canal, well etc.).
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Molinate Water Management Requirements, Continued

- B. An emergency release may be granted only if all of the following conditions are satisfied.
 - 1. All required information is provided.
 - 2. Water management requirements for rice pesticides other than molinate are satisfied.
 - 3. EC of paddy water exceeds 2.0 dS/m or 2,000 μ S/cm.
 - 4. The county agricultural commissioner or his or her staff inspects the site.
 - C. Water may be released from paddies where EC measurements exceed 2.0 dS/m or 2,000 μ S/cm and from paddies downgradient from such paddies within the same field. Water shall only be released in an amount necessary to mitigate the salinity problem.
 - D. Those issued an emergency release must submit to the county agricultural commissioner a report (Form B) indicating the time and duration of the emergency release and data that can be used to calculate the total amount of water released during the emergency release.
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FORM A

MOLINATE WATER MANAGEMENT REQUIREMENTS, Emergency Release

Grower: _____ Permit No.: _____

Address: _____ Zip: _____

Field Location: _____ Site No.: _____

(Attach detailed map)

Chemical applied: _____

Chemical applied: _____

Rate of application: _____

Rate of application: _____

Date of application: _____

Date of application: _____

Average water depth
at time of application: _____

Average water depth
at time of application: _____

Starting date of emergency release: _____

Acres treated in field: _____ Laser leveled: Yes _____ No _____

Type of irrigation system: _____ Flow through _____ Recycle _____ Static _____ Other _____

Date flooding began: _____ No. of days it takes to fill field: _____

Describe problem that led to emergency release: _____

Steps that can be taken to prevent emergency releases from this field in future years: _____

Recommendation (attached by): _____

Applications by: _____

Grower's signature: _____ Date: _____

Approved by: _____

Agricultural Biologist

FORM B

MOLINATE WATER MANAGEMENT REQUIREMENTS, Emergency Release

Grower: _____

Permit No.: _____

Address: _____

Zip: _____

Field Location: _____

Site No.: _____

Beginning date of release: _____

Ending date: _____

The grower must determine the amount of water discharged during the emergency release period. To do this, measure the width of each weir opened to allow the discharge. Then, on a daily basis, measure the height of water flowing over each weir. Record all information in the table below.

Weir 1		Weir 2		Weir 3	
Width:		Width:		Width:	
Date	Height of water	Date	Height of water	Date	Height of water

Thiobencarb Water Management Requirements

- I. For rice fields treated with thiobencarb in the Sacramento Valley (north of the line defined by Roads E10 and 116 in Yolo County and the American River in Sacramento County), except those treated with Abolish® 8EC :
 - A. All water on treated fields must be retained on the treated fields for at least 30-days following application unless:
 - 1. The water is contained within a tailwater recovery system, ponded on fallow land, or contained in other systems appropriate for preventing discharge. The system may discharge 20 days following the last application of thiobencarb within the system.
 - (a) If the system is under the control of one permittee, water may be discharged from the application site in a manner consistent with product labeling.
 - (b) If the system includes drainage from more than one permittee, water may be discharged from the application site into the system seven days following application.
 - 2. The water is on fields within the bounds of areas that discharge negligible amounts of rice field drainage into perennial streams until fields are drained for harvest. Water from such fields must be held at least 19 days, unless the county agricultural commissioner evaluates such sites. If the commissioner verifies the hydrologic isolation of the fields, the water may be released seven days after application.
 - B. Fields not specified in I.A.1. and I.A.2. may resume discharging field water 31 days following application at a volume not to exceed two inches of water over a drain box weir. Unregulated discharges from these fields may then resume after seven days.
- II. For rice fields treated with thiobencarb in the Southern Area (south of the line defined by Roads E10 and 116 in Yolo County and the American River in Sacramento County), except those treated with Abolish 8EC:

Thiobencarb Water Management Requirements, Continued

- A. All water on treated fields must be retained on the treated fields for at least 19 days following application unless:
 - 1. The water is contained within a tailwater recovery system, ponded on fallow land, or contained in other systems appropriate for preventing discharge. The system may discharge 20 days following the last application of thiobencarb within the system.
 - (a) If the system is under the control of one permittee, water may be discharged from the application site in a manner consistent with product labeling.
 - (b) If the system includes drainage from more than one permittee, water may be discharged from the application site into the system seven days following application.
 - 2. The water is on fields within the bounds of areas that discharge negligible amounts of rice field drainage into perennial streams until fields are drained for harvest. Water from such fields may be released seven days after application if the county agricultural commissioner evaluates such sites and verifies the hydrologic isolation of the fields.
 - B. Fields not specified in II.A.1. and II.A.2. may resume discharging field water 20 days following application at a volume not to exceed two inches of water over a drain box weir. Unregulated discharges from these fields may then resume after seven days.
- III. For all areas, fields treated with Abolish® 8EC:
- A. All water on treated fields must be retained on the treated fields for at least 19 days following application unless:
 - 1. The water is contained within a tailwater recovery system, ponded on fallow land, or contained in other systems appropriate for preventing discharge. The system may discharge 20 days following the last application within the system.
 - (a) If the system is under the control of one permittee, water may be discharged from the application site in a manner consistent with product labeling.
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Thiobencarb Water Management Requirements, Continued

- (b) If the system includes drainage from more than one permittee, water may be discharged from the application site into the system seven days following application.
 - 2. The water is on fields within the bounds of areas that discharge negligible amounts of rice field drainage into perennial streams until fields are drained for harvest. Water from such fields may be released seven days after application if the county agricultural commissioner evaluates such sites and verifies the hydrologic isolation of the fields.
 - B. Fields not specified in III.A. may resume discharging field water 20 days following application at a volume not to exceed two inches of water over a drain box weir. Unregulated discharges from these fields may then resume after seven days.
- IV. The county agricultural commissioner may authorize the emergency release of field water on the 20th day following the last thiobencarb application, following the review of a written application that demonstrates salinity levels are damaging to the crop.
- A. Applicants for such emergency releases must provide the following information:
 - 1. All information indicated on the emergency release request (Form C), including a description of the severity and extent of salinity damage.
 - 2. Electrical conductivity (EC) measurements, expressed as deciSiemens per meter (dS/m) or microSiemens per centimeter ($\mu\text{S}/\text{cm}$), from field water in each paddy suspected of having salinity problems. To most effectively demonstrate salinity problems, measurements should be taken wherever salinity problems are evident.
 - 3. The instrument (make and model) used to determine EC measurements. The instrument must have a sensitivity range that accommodates the full range of EC values in intake and paddy water (usually a range of 0-5.0 dS/m or 0-5,000 $\mu\text{S}/\text{cm}$ should be sufficient) and should have a resolution of not less than five percent. The instrument must be calibrated according to the manufacturer's instructions. The applicant must specify the method of temperature compensation (i.e., automatic, conversion table).
 - 4. Who made the EC measurements.
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Thiobencarb Water Management Requirements, Continued

5. The source of irrigation water (e.g. district supply canal, drainage canal, well, etc.).
- B. An emergency release may be granted only if all of the following conditions are satisfied:
1. All required information is provided.
 2. Water management requirements for rice pesticides other than thiobencarb are satisfied.
 3. EC of paddy water exceeds 2.0 dS/m or 2,000 μ S/cm.
 4. The County Agricultural Commissioner or his or her staff inspects the site.
- C. Water may be released from paddies where EC measurements exceed 2.0 dS/m or 2,000 μ S/cm and from paddies down gradient from such paddies within the same field. Water shall only be released in an amount necessary to mitigate the salinity problem.
- D. Those issued an emergency release must submit to the county agricultural commissioner a report (Form D) indicating the time and duration of the emergency release and data that can be used to calculate the total amount of water released during the emergency release.
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FORM C

Thiobencarb Water Management Requirements, Emergency Release

Grower: _____ Permit No.: _____

Address: _____ Zip: _____

Field Location: _____ Site No.: _____

(Attach detailed map)

Chemical applied: _____ Chemical applied: _____

Rate of application: _____ Rate of application: _____

Date of application: _____ Date of application: _____

Average water depth
at time of application: _____ Average water depth
at time of application: _____

Starting date of emergency release: _____

Acres treated in field: _____ Laser leveled: Yes _____ No _____

Type of irrigation system: _____ Flow through _____ Recycle _____ Static _____ Other _____

Date flooding began: _____ No. of days it takes to fill field: _____

Describe problem that led to emergency release: _____

Steps that can be taken to prevent emergency releases from this field in future years: _____

Recommendation (attached by): _____

Applications by: _____

Grower's signature: _____ Date: _____

Approved by: _____

Agricultural Biologist

FORM D

Thiobencarb Water Management Requirements, Emergency Release

Grower: _____

Permit No.: _____

Address: _____

Zip: _____

Field Location: _____

Site No.: _____

Beginning date of release: _____

Ending date: _____

The grower must determine the amount of water discharged during the emergency release period. To do this, measure the width of each weir opened to allow the discharge. Then, on a daily basis, measure the height of water flowing over each weir. Record all information in the table below.

Weir 1		Weir 2		Weir 3	
Width:		Width:		Width:	
Date	Height of water	Date	Height of water	Date	Height of water

General Water-Holding Requirements

- I. The following seepage control requirements apply to all rice pesticides having mandatory water-holding requirements such as molinate, thiobencarb etc. Non-compliance with seepage requirements is considered a water-holding violation.
 - A. Rice pesticides, such as molinate and thiobencarb, shall not be applied to rice fields exhibiting visible water seepage that moves offsite into drains that are considered state waters.
 - B. Borders surrounding each rice field shall be compacted before water is allowed to fill the field; the degree of compaction shall be sufficient to prevent water from seeping through the border. For example, compaction may be achieved by driving the tires or tracks of a tractor, or other heavy vehicle, on one side of the border.
 - C. A common border between two existing rice fields does not need to be compacted.
 - D. This requirement applies to new or reworked existing borders for the current rice season.
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Methyl Parathion Water Management Requirements

Water shall not be discharged from sites treated with methyl parathion for at least 24 days following application unless the treated water is contained within a tailwater recovery system, ponded on fallow land, or contained in other systems appropriate for preventing discharge. The system may discharge 25 days following the last application of methyl parathion within the system. Treated water may be discharged from the application site in a manner consistent with product labeling.

Malathion Water Management Recommendations

The Central Valley Regional Water Quality Control Board has approved a water management practice following malathion use in rice that will help meet 2003 water quality performance goals for malathion in surface water. Malathion is currently not a restricted material and not subject to use requirements or permit conditions. However, it is important that growers comply with this practice.

Water from fields treated with malathion should be held on the site of application for at least four days following application.

Recommended Permit Conditions to Minimize Drift of Pesticides Applied to Rice in the Sacramento Valley

The following drift minimization measures are recommended permit conditions for those pesticides that are restricted materials. Applicators should be encouraged to utilize these measures for other pesticides whenever possible to minimize environmental contamination from drift.

I. AIRCRAFT

A. Aircraft application equipment used to apply a pesticide spray solution to rice shall be configured as follows:

1. Functional boom length, measured from outboard nozzle to outboard nozzle, shall not exceed 75% of the overall wing span or rotor length.
 2. Boom pressure shall not exceed the manufacturer's recommended pressure for the nozzles being used.
 3. The flow of liquid from each nozzle shall be controlled by a positive shutoff system.
 4. Nozzle orifices shall be directed backward neutral to the airstream.
 5. Aircraft shall be equipped with:
 - (a) Jet nozzles having an orifice of not less than one-sixteenth of an inch in diameter. Nozzles shall not be equipped with any device or mechanism which would cause a sheet, cone, fan, or similar type dispersion of the discharged material except helicopters operating at 60 miles per hour or less may add a number 46 (or equivalent) or larger whirlplate;
 - (b) Helicopters operating at 60 miles per hour or less may instead of (A) be equipped with fan nozzles with a fan angle number not larger than 80 degrees and a flow rate not less than one gallon per minute at 40 pounds per square inch pressure (or equivalent); or
 - (c) After evaluation, the director may authorize other nozzles for aircraft use.
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Recommended Permit Conditions to Minimize Drift of Pesticides Applied to Rice in the Sacramento Valley, Continued

- B. Aerial applications of a pesticide spray solution or granular pesticide made to rice shall meet the following requirements:
 - 1. Apply only when there is a positive air flow but wind speed shall not be more than 10 mph at the application site, as measured by an anemometer positioned 4 feet above the ground. The minimum wind restriction does not apply to applications of granular pesticides.
 - 2. Discharge shall start after entering the target site; discharge height shall not exceed 10 feet above the crop or target; discharge shall be shut off whenever necessary to raise the equipment over obstacles; discharge shall be shut off before exiting the target site. The 10 feet height restriction does not apply to applications of granular pesticides.

II. GROUND

- A. Vehicle-mounted or towed ground equipment, other than handguns, used to make applications to rice shall be equipped with:
 - 1. Nozzles having an orifice not less than one-sixteenth of an inch in diameter (or equivalent) and operated at a boom pressure not to exceed the manufacturer's recommended pressure for the nozzles being used; or
 - 2. Low-pressure fan nozzles with a fan angle number not larger than 80 degrees and nozzle orifice not less than 0.2 gallon per minute flow rate (or equivalent) and operated at a boom pressure not to exceed 15 pounds per square inch.
- B. Applications of a pesticide spray solution made to rice by vehicle-mounted or towed ground equipment shall meet the following requirements:
 - 1. Apply only when wind speed is 10 miles per hour or less at the application site, as measured by an anemometer positioned four feet above the ground.
 - 2. Discharge shall start after entering the target site; discharge shall be shut off before exiting the target site.

Use Requirements for Phenoxy/Dicamba Herbicides

- I. The following requirements apply to Dicamba, 2,4-dichlorophenoxyacetic acid, 2,4 dichlorophenoxybutric acid, 2,4-dichlorophenoxypropionic acid, and 2-methyl-4-chlorophenoxyacetic acid (MCPA) herbicides when used in nonorchard field and row crops grown in the following areas of the Sacramento Valley:
 - A. The counties of Butte, Colusa, Glenn, Placer, Sutter, Yolo, Yuba; the portion of Sacramento County situated north of Highway 80; and the portion of Tehama County situated west of the Sacramento River.
 - B. No herbicide in an ester form shall be applied, unless expressly authorized by a permit issued by the commissioner.
 - C. Restrictions on types of application.
 1. Fixed-wing aircraft and helicopter applications are prohibited April 1 through October 15.
 2. Ground equipment applications made between April 1 through October 15 shall be made in accordance with the following requirements:
 - (a) Prior to making ground applications, the permittee or his/her authorized representative shall complete a drift reduction techniques training course approved by a commissioner. Following the initial course, the permittee or his/her authorized representative shall complete a drift reduction techniques training course every three years. The drift reduction techniques training course shall cover the following topics: Proper boom pressure; proper nozzle size; relationship of boom pressure and nozzle size on droplet size and drift; proper discharge height above the target crop/site; effects of excessive boom length and unstable equipment on coverage and drift; climatic effects such as air temperature, weather, and inversion conditions on drift; and review of labeling requirements including use directions, hazard and precautionary statements.
 - (b) Unless expressly authorized by permit, no application shall be made within two miles of any cultivated commercial cotton, grape, or pistachio planting.
 - (c) Each operating nozzle shall produce a droplet size, in accordance with the manufacturers' specifications, not less than 500 microns volume median diameter (Dv0.5) with 10 percent of the diameter by volume (Dv0.1) not less than 200 microns.

Propanil Ground Use Area Recommended Permit Conditions

- I. The CAC has the discretion to increase the existing acreage limits and allow applications of propanil according to the following recommended permit conditions.
 - II. No ground application shall be made within one mile of cultivated commercial plantings of pistachios or prunes owned by any person other than the owner of the property being treated, except as follows:
 - A. The CAC may decrease the buffer zone to no less than one-half mile when all the following conditions are met:
 - 1. Prior to the application a written recommendation by a licensed pest control adviser shall be submitted to the commissioner stating there are no other feasible pest management alternatives;
 - 2. Onsite monitoring of wind speed and wind direction shall be conducted in a manner approved by the commissioner throughout the entire application and a record of recorded data shall be retained for one year; and
 - 3. A positive airflow away from the sensitive crop(s) is present throughout the entire application. At any time during the application if airflow changes in the direction of the sensitive crop, the application must cease.
 - B. Prior to any decrease of the buffer zone to less than one-half mile, the Director of DPR must approve a plan that contains the following:
 - 1. A description of any requirements, in addition to those above, the CAC intends to adopt to protect nearby sensitive crops;
 - 2. A program to monitor strict compliance with all requirements;
 - 3. Certification that the county has the resources available to adequately implement the plan as proposed.
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Recommended Permit Conditions to Minimize Drift of Thiobencarb

- I. Prior to making thiobencarb applications, the permittee or his/her authorized representative shall attend a 2003 Thiobencarb Stewardship Meeting sponsored by the California Rice Commission.
- II. The use of Bolero 10 G formulation in all counties is prohibited.
- II. All counties within ½ mile of the Sacramento and Feather Rivers: Aerial applications shall occur only when the wind speed is 7 mph or less and wind direction is away from the river.
- III. In Sacramento and Yolo counties only, no aerial applications shall be made within ¼ mile of the Sacramento River unless:
 - 1 Ground applications are allowed within the buffer zone; OR,
 - 2 All applications are made under the direct supervision of the commissioner's representative; OR,
 - 3 No more than 33 percent of the total average applied (from the 2002 daily acreage Average) in Sacramento and Yolo counties within the buffer zone.

Methyl Parathion Drift Mitigation Requirement

- I. No aerial application of liquid formulations of methyl parathion to rice shall be applied within a 300 foot downwind from any agricultural drain.
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